

## Technical Data Sheet

<b>In Compliance With</b> EN norms	Zeorich Base is eco-friendly, light weight, non-water curing, quick drying, high strength, shrinkage-less, mineral based binder in powder form made from natural material to create stable base of screed before fixing of any kind of tiles, stone or other coverings such as carpet, wooden flooring, coatings etc.
<b>Main application</b> Binder for Underlay Screed for tiles, stone & other covering	

### Technical advantage of Zeorich Base over cement mortar or screed

- A Ready to use binder which replaces completely using of traditional cement.
- Can be used with any kind of river sand or crushed sand.
- Heavy duty and compressive strength of >50 Mpa of binder.
- Dry within 24 hours with humidity under 3% and ready for fixing of any kind of tiles or stable stone on top.
- Can be used as fresh mortar to fix all kind of tiles and stable stone by using Walnut Lite Floor slurry adhesive.
- Minimum thickness of 25 mm. till 80 mm. or more in single go by adjusting sand size.
- No water curing requires.
- No moisture rising on wall compare to traditional mortar and hence no peeling of paints.
- Saving of time, labour & cost.
- Can be used for heavy traffic area such as industrial floor, airport or in swimming pool & residential floor etc.
- Light weight compares to normal cement.
- Can be mixed with any kind of quality certified sand of 0 to 8 mm. size.
- Can be customized at site for desire compressive strength as high as upto 35 Mpa.
- Can be used as overlay by applying Zeorich Base HD on top.
- No shrinkage in base screed, once fully dry in short period of 4 - 5 days.
- Low VOC and suitable for green building.

### Suitable areas

- Internal & external floor as underlay.
- Residential & commercial floors including parking.
- Industrial floors.
- Public infrastructures such as airports, railways etc.
- Fully wet areas including swimming pool, water tank etc. as underlay.

### Suitable surfaces

- Fully dry and stable new or old concrete floors.
- New or old IPS or PCC floors which are sound and stable.
- Modern stable concrete floors such as mivan or foam concrete.
- Industrial concrete floors of all type.
- Other non-cement floors which are uniform, stable & strong to use Zeorich Base as non-bonded screed.

### Suitable covering material

- All kind of ceramic & vitrified tiles with Walnut suitable adhesive.
- All kind of natural or recomposed stone with Walnut suitable adhesive.
- All kind of other covering such as cement based self levelling, epoxy or PU coatings, wood flooring & carpet etc.

## Product not to be used

- On floors which are deformable or not sound.
- On floors which are having extreme movement.
- On floors which are not stable and structurally sound.
- For wall of plaster application.

## How to use



### Important tools for application:

- Suitable site mortar / concrete mixer.
- Levelling bar
- Auto spirit level OR laser level.
- Other mixing & finishing tools such as trowel, bucket, brush, broom, measuring tape etc.

### Cleaning of tools:

While still the material is fresh, all the tools can be cleaned with normal water. Once material is hardened, the material can be removed only by mechanical means.

### Mixing Ratio:

#### Application area

For fixing of all kind of tiles in interior	:	1:8 by volume or weight
For fixing of all kind of tiles in exterior	:	1:6 by volume or weight
For fixing of all kind of marble & granite	:	1:4 by volume or weight
Using on heavy duty floors as overlay screed (Alongwith Zeorich Base HD)	:	1:3 by volume or weight

#### Zeorich Base : Zeorich Basalt

## Surface Preparation:

- Ensure that concrete surface is sound, strong, clean and free from all foreign material such as oil, grease, dust etc.
- Before applying the products on extreme dry or hot surface, splash sufficient water to reduce the shock and surface temperature. Let it surface dry. In normal course too, splash the water to regulate the surface absorption.
- For dispersing the movement & stresses caused by expansion between concrete walls & floor, use separator at all corner by using 5mm. thick and 4-inch-wide un-bonded polyethylene foam sheet or similar kind of material.
- Expansion joint in concrete must be followed. In case large area of tiling, movement joint in base mortar must be design at every 3 meter along-with tiling.
- In case of un-bonded mortar is require, first fix the 1 mm. thick polythene film on concrete floor, then spread the mortar in the thickness of 50 mm. or more and follow the tiling process.

## Mixing:

- Mix the Zeorich Base preferably along-with Zeorich Basalt sand as per above suggested ratio in normal concrete mixer. Water ratio normally is 40 to 50 % by weight of Zeorich base but can be adjusted as per type of sand, weather and humidity until semi-dry consistency is obtained.
- If screed thickness is less than 40 mm. or floor or under heavy use, apply first the slurry bond coat prepared with Zeorich SBR: Water: Zeorich Base in the ratio of 1:1:2 by weight.

## How to apply:

- If slurry bond coat is applied, then spread the mortar onto floor while still the slurry is fresh.
- Spread the mortar onto the prepared concrete floor in desire thickness, then compact and level.
- Once proper levelling & compacting is done, especially for large area, a light weight power floater must be used to have smooth and levelled surface. For small areas proper smoothing must be done by using flat trowel.
- Fix tiles or stable stone after 24 hours. In case moisture sensitive stone, wooden flooring, self levelling, PU or Epoxy coating, use the screed after 4-5 days of full dry.
- In case tiles or stone to be fixed immediately by wet-on-wet technique, it can be done by using Walnut Lite Floor slurry adhesive over fresh Zeorich screed and tiles or stone must be fixed within 1 to 2 hours of screed application.

## Product & Working Data

Product appearance	: Grey colour Powder
Packing	: 20 Kg. moisture proof bag
Shelf life	: 12 months from the date of manufacturing.
Pot life	: > 2 hours*
Thickness	: Minimum 25 mm. till 80 mm.+
Water ratio	: 40-50 % by weight of Zeorich Base or as needed.
Workability	: Approx. 15 to 30 minutes.
Initial setting	: 6 to 8 hours.
Final setting	: 24 hours.
Walking on floor	: After 24 hours.
Fixing of tiles / Indian stone onto fresh screed	: Immediate with Walnut Lite Floor slurry adhesive.
Fixing of tiles / stable stone onto dry screed	: After 24 hours with paste adhesive.
Fixing of moisture sensitive material	: After 5-6 days
Full strength of screed	: At 28 days.
Doses of Zeorich Base	: As per strength and can be 1.50 to 3.5 kg. / M2 / 10 mm. of thickness.
Doses of Zeorich Basalt or sand	: 18 to 20 kg. / M2 / 10 mm. of thickness.
Coverages	: Refer the chart.
Working temperature	: + 5° C. to + 35° C.

(Data @ 23° C. & 50% humidity)

## Technical Performances

### In compliance with European norms EN 13892

<b>Zeorich Base: Zeorich Basalt</b>	<b>Compressive Strength</b>	<b>Coverage / 20 Kg. bag for 25 mm. thickness of screed</b>
1:3 by volume or weight	≥ 35 N / mm <sup>2</sup>	18 sft. approx.
1:4 by volume or weight	≥ 28 N / mm <sup>2</sup>	22 sft. approx.
1:6 by volume or weight	≥ 22 N / mm <sup>2</sup>	32 sft. approx.
1:8 by volume or weight	≥ 15 N / mm <sup>2</sup>	40 sft. approx.

(Final results @ 28 days. 23° C. & 50% humidity)

- The final results may vary based on kind of sand used at site, water ratio, temperature and humidity.
- Final resistance to temperature after 28 days or full cure: - 30 to + 90°C.

## Walnut exclusive technology



## Important instructions

- Please note that by diluting more sand with Zeorich Base, may result in segregation of dry screed & a weaker screed.
- In case using normal sand, ensure that sand is of proper granulometry, clean and silt content under control.
- Once bags are open, entire material must be consumed within 24 hours. Store the bags in safe environment.
- In case product need to be used for less than 25 mm. thick or more than 80 mm., consult Walnut local Technical representative.
- In case of very weak concrete surface, please ensure that proper strength or correction are done in base surface.
- If temperature is very high and more than 35\* C. in external areas, avoid using the products or cover the applied product immediately with dampen cloth for next 24 hours or more till it cure fully.
- In case temperature are extremely cold below 5\* C., the initial and final setting may affect.
- Expansion & connection joint must be followed of concrete and all other elements of concrete structure.
- For any structure related issue, follow local code and appropriate consultant guidelines.
- In case the performance of Walnut products not as per technical data mentioned, please call Walnut technical helpline.

## Walnut Green Building Index

Walnut range of products are most eco-friendly and most suitable to use in green buildings and in all other buildings. Apart from using best of international raw material for best performance, Walnut procure the major raw material locally to safeguard environment.



- Recycled raw material used.
- VOC (Very low Organic Compounds).
- 100% suitable to recycle after expiry.
- Suitable for all kind of green and normal buildings.

## Walnut Quality & Safety Assurance

Walnut range of products are most eco-friendly and suitable to use in all kind of buildings including certified green. Apart from using best of international raw material for best performance, Walnut procure the major raw material locally to safeguard environment. For more detail refer material safety data sheet.



## Declaration

All the above information and results are provided based on Walnut internal quality test. Customer must check before using the product about performance and final expected results. Walnut cannot be held responsible for any damage of whatsoever nature at site.

## Technical Help

**Walnut Building Solutions India Private Limited | CIN : U36999MH2017PTC289638**

IJMIMA, 804, 8<sup>th</sup> floor, Behind Goregaon sports club, off link road, Malad West, Mumbai - 400064

Technical services & customer care: +91-22-49713322 / +91 9967007783 | email: info@wallnut.co.in